external manifestation of intra-atomic activity runs as follows: * In the transmission of physical influence units of action (quanta) are transferred from atom to atom; the vital directive activity would consist in controlling the time and direction of this transfer.'

This seems to be a very interesting suggestion; if it is sound, it diminishes the difficulties in the way of explanation of biological phenomena in terms, not of strict mechanism, but of what might be called para-mechanism, or, at least, of atomic and material constitution of the living tissues. But I do not at present see that it would do more than lift some of the negations and prohibitions which the acceptance of strict mechanistic theory involves. For example, it does not seem to throw positive light on the dark problems of organization and morphogenesis; nor even upon that more fundamental one of growth by selective assimilation; nor yet upon that strange stability of chemically highly complex organic substances which, by all the laws of chemistry, should be highly unstable. Stability, according to Lillie, is a function not of the intra-atomic activities of atomic structures, but of their mechanical nature; yet it is one of the most fundamental peculiarities of living things.

Lillie supplements this new view of the two-fold or dual nature of atomic activity by suggesting that the atom is of the nature of a monad whose internal constitution and internal activity are not properly conceivable in terms of spatial relations of constituent parts, such as

electrons ; but that rather we may more properly conceive its internal activities as of the same order as the psychical activities known directly to each of us as that private experience which Hogben so arbitrarily rules out from all scientific consideration because it lacks [c] publicity '.